

REMARKS/ARGUMENTS

In the Office action dated October 20, 2009, the Examiner rejected claims 1-3, 5-20, 23-25, 27, 28, 30-35 and 44-50 under 35 U.S.C. §103(a) as allegedly obvious over Abele (U.S. Patent No. 5,403,311) in view of West, et al. (U.S. Patent No. 5,318,525) and Langer, et al. (U.S. Patent no. 6,004,295). However, Applicant has amended independent claims 1 and 23 to recite that the penetration monitoring electrode is electrically isolated from the injection needle. None of Abele, West and Langer teach or suggest such a feature. Although the Examiner points to column 8, line 50 through column 9, line 5 as support for the contention that Langer discloses an electrode mounted on the injection needle and electrically isolated from the injection needle, that passage nowhere teaches or suggests such a configuration. Rather, column 8, lines 50-60 state:

Then the injection catheter is introduced through a guide catheter, positioned at the location for injection, and the injection catheter is advanced 60 that the needle 36 penetrates the location, e.g. the myocardium. The exact amount of fluid can then be injected by operation of the syringe 88 on the proximal end. The catheter assembly can then be moved to the next area for injection, and the process repeated. A catheter of this design may have a length of 100 cm and a lumen diameter of 0.01 inch, giving an approximate capacity of 0.05 cc of injection fluid. With such a small volume lumen, very little injection fluid is lost.

The remainder of the passage cited by the Examiner includes claim 1, which does not recite a penetration monitoring electrode, let alone that such an electrode is electrically isolated from the injection needle. Moreover, Figures 8A and 8B of Langer fail to illustrate that the recording electrode 80 is electrically isolated from the needle 36. Instead, those drawings appear to show the electrode 80 in direct contact with the needle. As the passage cited by the Examiner nowhere teaches or suggests a penetration monitoring electrode electrically isolated from the injection needle, and the drawings in Langer appear to disclose that the recording electrode directly contacts the needle, independent claims 1, 9 and 23, and all claims dependent therefrom, including claims 2, 3, 5-8, 10-20, 24, 25, 27, 28, 30-35 and 44-50, are allowable over Abele, West and Langer.

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The Examiner also rejected claims 4 and 26 under 35 U.S.C. §103(a) as allegedly obvious over Abele, West and Langer in view of Cosman (U.S. Patent No. 4,966,597). However, each of claims 4 and 26 depends from one of independent claims 1, 9 and 23, all of which are allowable over Abele, West and Langer as discussed above. Cosman fails to remedy the deficiencies of Abele, West and Langer, as Cosman, either alone or in combination with Abele, West and Langer fails to teach or suggest the recited penetration monitoring electrode. Accordingly, independent claims 1, 9 and 23, and claims 4 and 26 which depend therefrom, are allowable over Abele, West, Langer and Cosman.


In rejecting original claims 13, 15, 45 and 47, the Examiner simply states that Abele discloses "all of the claimed methods." Office action, page 5. However, Abele nowhere teaches or suggests a method in which a determining step comprises measuring the *impedance* across the electrode mounted on the injection needle, as recited in claim 45, or a method in which a determining step comprises *comparing the impedance* across the electrode mounted on the injection needle to the impedance across the additional electrode, as recited in claim 45. Indeed, Abele nowhere teaches or suggests the electrode mounted on the injection needle, as admitted by the Examiner. Office action, page 3 (stating that Abele does not teach the penetration monitoring electrode fixedly mounted on the needle tip). Also, Abele nowhere teaches or suggests a method in which a determining step comprises measuring the *impedance* across the distal end of the injection needle, as recited in claim 13, or a method in which a determining step comprises *comparing the impedance* across the distal end of the injection needle to the impedance across the additional electrode. As Abele nowhere teaches or suggests these features, and none of West, Langer and Cosman remedy this deficiency, claims 13, 15, 45 and 47 are independently allowable over these references.

1-20, 23-28, 30-35 and 44-50 are pending in this application. By this amendment, Applicant has amended claims 1 and 23 to place the claims in condition for allowance. The amendments find full support in the original specification, claims and drawings, and no new matter is presented. In light of the above amendments and remarks, Applicant submits that all of pending claims 1-20, 23-28, 30-35 and 44-50 are in condition for allowance. Applicant therefore

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respectfully requests reconsideration and a timely indication of allowance. However, if there are any remaining issues that can be addressed by telephone, Applicant invites the Examiner to contact Applicant's counsel at the number indicated below.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Lauren E. Schneider
Reg. No. 63,712
626/795-9900

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